

WHAT IS CLAIMED IS:

1 1. A method for minimizing the cycle time of a burnish cycle, comprising:
2 performing an initial MR resistance measurement for a head;
3 determining whether the measured MR resistance indicates the head has
4 clearance; and
5 completing the test cycle when the head is determined to have clearance.

1 2. The method of claim 1 further comprising:
2 initiating operation to reduce fly-height of the head;
3 continue burnishing the surface;
4 performing another MR resistance measurement; and
5 returning to determine whether the measured MR resistance indicates the head
6 has clearance.

1 3. The method of claim 2, wherein the initiating operation to reduce fly-
2 height of the head further comprises selecting at least one process from the group
3 comprising reducing the pressure within the disclosure, reducing the spindle speed and
4 increasing the pre-load to the head.

1 4. The method of claim 1, wherein the determining whether measured MR
2 resistance indicates the head has clearance further comprises comparing the absolute
3 MR resistance measurements to a threshold to identify whether the head has clearance.

1 5. The method of claim 1, wherein the determining whether measured MR
2 resistance indicates the head has clearance further comprises comparing the MR
3 resistance rate of change to a threshold to identify whether the head has clearance.

1 6. A drive controller for minimizing the cycle time of a burnish cycle, the
2 drive controller comprising:
3 memory for storing data therein; and
4 a processor, coupled to the memory, the processor being configured for
5 performing an initial MR resistance measurement for a head, determining whether the
6 measured MR resistance indicates the head has clearance and completing the test cycle
7 when the head is determined to have clearance.

1 7. The method of claim 6, wherein the processor is further configured for
2 initiating operation to reduce fly-height of the head, continue burnishing the surface,
3 performing another MR resistance measurement and returning to determine whether the
4 measured MR resistance indicates the head has clearance.

1 8. The method of claim 7, wherein the processor initiates operation to
2 reduce fly-height of the head by selecting at least one process from the group
3 comprising reducing the pressure within the disclosure, reducing the spindle speed and
4 increasing the pre-load to the head.

1 9. The method of claim 6, wherein the processor determines whether
2 measured MR resistance indicates the head has clearance by comparing the absolute MR
3 resistance measurements to a threshold to identify whether the head has clearance.

1 10. The method of claim 6, wherein the processor determines whether
2 measured MR resistance indicates the head has clearance by comparing the MR
3 resistance rate of change to a threshold to identify whether the head has clearance.

1 11. A program storage device readable by a computer, the program storage
2 device tangibly embodying one or more programs of instructions executable by the
3 computer to perform operations for minimizing the cycle time of a burnish cycle, the
4 operations comprising:

5 performing an initial MR resistance measurement for a head;
6 determine whether the measured MR resistance indicates the head has clearance;
7 and
8 completing the test cycle when the head is determined to have clearance.

1 12. The program storage device of claim 11 further comprising:
2 initiating operation to reduce fly-height of the head;
3 continue burnishing the surface;
4 performing another MR resistance measurement; and
5 returning to determine whether the measured MR resistance indicates the head
6 has clearance.

1 13. The program storage device of claim 12, wherein the initiating operation
2 to reduce fly-height of the head further comprises selecting at least one process from the
3 group comprising reducing the pressure within the disclosure, reducing the spindle
4 speed and increasing the pre-load to the head.

1 14. The program storage device of claim 11, wherein the determining
2 whether measured MR resistance indicates the head has clearance further comprises
3 comparing the absolute MR resistance measurements to a threshold to identify whether
4 the head has clearance.

1 15. The program storage device of claim 11, wherein the determining
2 whether measured MR resistance indicates the head has clearance further comprises
3 comparing the MR resistance rate of change to a threshold to identify whether the head
4 has clearance.